

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604311N: LPD-17 Class Systems Integration							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.950	5.282	1.373	0.000	1.373	2.780	12.054	17.752	19.652	Continuing	Continuing
2283: LPD-17 Class System Integration	0.950	5.282	1.373	0.000	1.373	2.780	12.054	17.752	19.652	Continuing	Continuing
A. Mission Description and Budget Item Justification The LPD 17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These new ships embark, transport, and land elements of Marine landing forces in an amphibious assault by helicopters, landing craft, and amphibious vehicles. Tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD 17 Class configuration must continue to adapt to this evolutionary process as theses ships are expected to be in service until almost 2050. The LPD 17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. The RDT&E,N funding will be used for system engineering and integration efforts to resolve obsolescence issues facing the LPD 17 class components, as well as develop further reductions in life cycle costs, and will integrate performance upgrades in a rapid, affordable manner. These efforts will result in well-defined specifications and drawings in system integration design packages that provide technical baselines for follow-on ship procurements. This program is funded under Engineering and Manufacturing Development because it encompasses engineering and manufacturing development of new end-items prior to production approval decision. Additionally, although operational testing ends in FY2008, funding is required in FY2010 for Follow On Test and Evaluation(FOT&E) as outlined in the Test and Evaluation Master Plan. Finally, LSD(R) Integration efforts begin FY2010.											

UNCLASSIFIED

R-1 Line Item #101

Page 1 of 10

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0604311N: LPD-17 Class Systems Integration			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.982	5.304	0.000	0.000	0.000
Current President's Budget	0.950	5.282	1.373	0.000	1.373
Total Adjustments	-0.032	-0.022	1.373	0.000	1.373
• Congressional General Reductions		-0.022			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.032	0.000			
• Program Adjustments	0.000	0.000	1.373	0.000	1.373
Change Summary Explanation					
Technical: Not applicable.					
Schedule: Not applicable.					
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.					

UNCLASSIFIED

R-1 Line Item #101

Page 2 of 10

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604311N: <i>LPD-17 Class Systems Integration</i>				PROJECT 2283: <i>LPD-17 Class System Integration</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2283: <i>LPD-17 Class System Integration</i>	0.950	5.282	1.373	0.000	1.373	2.780	12.054	17.752	19.652	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The LPD 17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These new ships embark, transport, and land elements of Marine landing forces in an amphibious assault by helicopters, landing craft, and amphibious vehicles. Tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD 17 Class configuration must continue to adapt to this evolutionary process, because these ships are expected to be in service until almost 2050. The LPD 17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. System engineering and integration efforts that began in FY 1997 will develop further reductions in life cycle costs and will integrate performance upgrades in a rapid, affordable manner. Possible improvements include advanced sensors, advanced computers, advanced command and control software, advanced information systems technologies, and ship based logistics concepts. Cost reduction and improved performance will be accomplished through sustained modeling and simulation efforts, continued personnel reductions efforts, system performance tradeoff evaluation, and naval expeditionary warfare systems engineering. Feedback from the operational forces for integrating system configurations will be accomplished through the Naval Expeditionary Warfare Centers in Quantico, Dahlgren, and Little Creek, Virginia. These efforts will result in well-defined specifications and drawings in system integration design packages that provide technical baselines for follow-on ship procurements. Additionally, although operational testing ends in FY2008, funding is required in FY2010 for Follow On Test and Evaluation (FOT&E) as outlined in the Test and Evaluation Master Plan. Finally, LSD(R) Integration efforts begin in FY 2010.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
LSD(R) Systems Integration	0.000	0.228	0.421	0.000	0.421
LSD(R) Systems Integration. LSD(R) is a replacement for the retiring LSD 41 and LSD 49 Classes (that may be based in the LPD 17 hull form). RDTEN profiles supports necessary preliminary efforts.					

UNCLASSIFIED

R-1 Line Item #101

Page 3 of 10

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604311N: LPD-17 Class Systems Integration		PROJECT 2283: LPD-17 Class System Integration		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Preparation of documentation for Gate process and Defense Acquisition Board(DAB) to define the way ahead for LSD(R).						
FY 2011 Base Plans: Continue development of documentation for Gate Process and Defense Acquisition Board(DAB).						
Systems Engineering/Integration Continuing Naval Expeditionary Warfare Systems Engineering efforts and integration efforts for unique LPD 17 Class systems, including efforts to resolve obsolescence issues impacting the class.		0.945	0.954	0.952	0.000	0.952
FY 2009 Accomplishments: Marine gas (MOGAS) Rack Production and Test, 4000 AMP Circuit Breaker Replacement Qualification, Air and Surface Defense Combat System Capabilities and Limitation Documents, Operational Test Plan Development, Operational Test Support, Demonstration and Procedures Plan(DPP), and USMC Communication Exercise Support.						
FY 2010 Plans: Conducting Bipolar Power Amplifier Unit(BPAU) Degaussing Controller Unit Reliability Study, SMART/ SAN Antonio Study, and Ship Control System(SCS) Electronic Data Recorder(EDR) Analysis. Training System and Gap Analysis to identify and validate manpower and training, Operational Test Plan Development, Demonstration and Procedures Plan(DPP) Support, USMC Communication Exercise Support, LPD 17 JITC Certification/OPEVAL Support, FOT&E MARCORSYSCOM Support, Advanced Enclosed Mast/Sensor(AEM/S) Access Study, and Radar Cross-Section Reduction(RCSR) Testing of MOGAS Rack.						

UNCLASSIFIED

R-1 Line Item #101

Page 4 of 10

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)			R-1 ITEM NOMENCLATURE PE 0604311N: LPD-17 Class Systems Integration			PROJECT 2283: LPD-17 Class System Integration					
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
FY 2011 Base Plans: Continue the Bipolar Power Amplifier Unit(BPAU) Degaussing Controller Unit Reliability Study, SMART/SAN Antonio Study, and Ship Control System(SCS) Electronic Data Recorder(EDR) Analysis. Continue the Training System process and GAP Analysis to identify and validate manpower and training, Operational Test Plan Development, Demonstration and Procedures Plan(DPP) Support, USMC Communication Exercise Support, LPD 17 JITC Certification/OPEVAL Support, Follow On Test and Evaluation (FOT&E) MARCORSYSCOM Support, Advanced Enclosed Mast/Sensor(AEM/S) Access Study, and Radar Cross-Section Reduction(RCSR) Testing of MOGAS Rack.											
OT&E Funding allows for operational test force support, range time, procurement of rounds/targets for testing, and other related costs as defines by the Test and Evaluation Master Plan (TEMP). FY2010 funding is for Follow On Test & Evaluation (FOT&E). FY 2010 Plans: Completion of OPEVAL Report corrections, and designated FOT&E test events.						0.000	4.100	0.000	0.000	0.000	
Defense Acquisition Workforce Fund FY 2009 Accomplishments: Funded Defense Acquisition Workforce Fund						0.005	0.000	0.000	0.000	0.000	
Accomplishments/Planned Programs Subtotals						0.950	5.282	1.373	0.000	1.373	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• BLI3036001: LPD 17	963.011	869.394	0.000	0.000	0.000	1,856.587	0.000	0.000	0.000	0.000	3,688.992

UNCLASSIFIED

R-1 Line Item #101

Page 5 of 10

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604311N: <i>LPD-17 Class Systems Integration</i>				PROJECT 2283: <i>LPD-17 Class System Integration</i>			
<u>C. Other Program Funding Summary (\$ in Millions)</u>											
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• BLI3036002: <i>LPD 17 SCN AP</i>	0.000	183.986	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	183.986
<u>D. Acquisition Strategy</u> N/A											
<u>E. Performance Metrics</u> LPD17 Class ships will conduct Follow On Test and Evaluation(FOT&E) as outlined in the test and evaluation Master Plan, with LSD(R) Integration efforts to follow.											

UNCLASSIFIED

R-1 Line Item #101

Page 6 of 10

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604311N: LPD-17 Class Systems Integration				PROJECT 2283: LPD-17 Class System Integration					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering and Integration	C/Various	Various Various	10.759	0.954	Dec 2009	0.952		0.000		0.952	0.000	12.665	Continuing
LSD(R) Systems Integration (Next Gen.)	C/Various	Various Various	0.000	0.228		0.421		0.000		0.421	0.000	0.649	Continuing
DAWF	C/Various	Various Various	0.005	0.000		0.000		0.000		0.000	0.000	0.005	Continuing
Subtotal			10.764	1.182		1.373		0.000		1.373	0.000	13.319	
Remarks													
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OT&E/Interoperability	WR	OPTEVFOR WR	11.392	4.100		0.000		0.000		0.000	0.000	15.492	Continuing
Subtotal			11.392	4.100		0.000		0.000		0.000	0.000	15.492	
Remarks													

UNCLASSIFIED

R-1 Line Item #101

Page 7 of 10

UNCLASSIFIED









Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>			R-1 ITEM NOMENCLATURE PE 0604311N: <i>LPD-17 Class Systems Integration</i>			PROJECT 2283: <i>LPD-17 Class System Integration</i>					
	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	22.156	5.282		1.373		0.000		1.373	0.000	28.811	
Remarks											

UNCLASSIFIED

R-1 Line Item #101

Page 8 of 10

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																				DATE: February 2010								
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)									R-1 ITEM NOMENCLATURE PE 0604311N: LPD-17 Class Systems Integration									PROJECT 2283: LPD-17 Class System Integration										
Fiscal Year	2009				2010				2011				2012				2013				2014				2015			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones									 MSIII																			
Follow-On FOT&E					 FOT&E																							
Deliveries	 LPD 21								 LPD22				 LPD24		 LPD23		 LPD 25						 LPD 26					

UNCLASSIFIED

R-1 Line Item #101

Page 9 of 10

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604311N: <i>LPD-17 Class Systems Integration</i>	PROJECT 2283: <i>LPD-17 Class System Integration</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Deliverables (LPD 21)	4	2009	4	2009
Deliverables (LPD 22)	3	2011	3	2011
Dleiverables (LPD 23)	1	2012	1	2012
Deliverables (LPD 24)	3	2012	3	2012
Deliverables (LPD 25)	1	2013	1	2013
Deliverables (LPD 26)	2	2015	2	2015
FOT&E	2	2010	3	2010
Milestone III	3	2011	3	2011

UNCLASSIFIED

R-1 Line Item #101

Page 10 of 10